

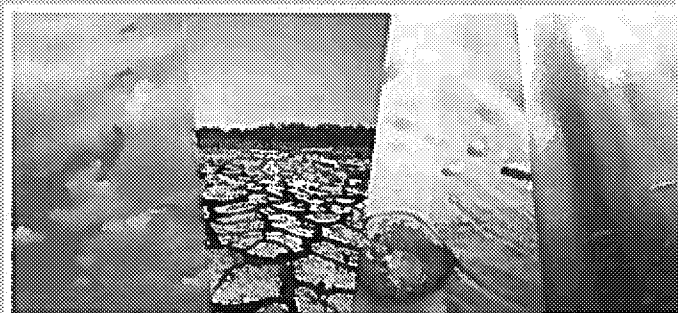


Calscience



WORK ORDER NUMBER: 14-11-0764

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Beta Offshore

Client Project Name: Weekly NPDES Produced Water Monitoring

Attention: Marina Robertson

111 W. Ocean Blvd., Suite 1240
Long Beach, CA 90802-4633

Amanda Porter

Approved for release on 11/12/2014 by:
Amanda Porter
Project Manager

ResultLink ▶

Email your PM ▶



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NELAP ID: 03220CA | ACLASS DoD-ELAP ID: ADE-1864 (ISQ-REC 17025:2005) | CSDLAC ID: 10109 | SCAQMD ID: 03LA0830

Nov 8 overboard 1100 bbls

ED_006322_00000094-00001

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 11/10/14. They were assigned to Work Order 14-11-0764.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Analytical Report

Beta Offshore
111 W. Ocean Blvd., Suite 1240
Long Beach, CA 90802-4633

Date Received: 11/10/14
Work Order: 14-11-0764
Preparation: N/A
Method: EPA 1664A
Units: mg/L

Project: Weekly NPDES Produced Water Monitoring

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NPDES Prod. Water	14-11-0764-1-A	11/08/14 12:36	Aqueous	N/A	11/10/14	11/10/14 18:00	E1110HEML5

Parameter	Result	RL	DF	Qualifiers
HEM: Oil and Grease	25.3	1.00	1.00	

Method Blank	099-05-119-3732	N/A	Aqueous	N/A	11/10/14	11/10/14 18:00	E1110HEML5
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Parameter	Result	RL	DF	Qualifiers
HEM: Oil and Grease	ND	1.0	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - LCS/LCSD

Beta Offshore
111 W. Ocean Blvd., Suite 1240
Long Beach, CA 90802-4633

Date Received: 11/10/14
Work Order: 14-11-0764
Preparation: N/A
Method: EPA 1664A

Project: Weekly NPDES Produced Water Monitoring

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-119-3732	LCS	Aqueous	N/A	11/10/14	11/10/14 18:00	E1110HEML5
099-05-119-3732	LCSD	Aqueous	N/A	11/10/14	11/10/14 18:00	E1110HEML5

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
HEM: Oil and Grease	40.00	39.20	98	39.00	98	78-114	1	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

**Sample Analysis Summary Report**

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 1664A	N/A	29	N/A	1

An upward-pointing arrow icon.
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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501

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Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/POSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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LTS Environmental Inc. 704 Adirondack Avenue Ventura, CA 93003 805-644-4560		Report to: Marina Robertson 111 W. Ocean Blvd. Suite 1240 Long Beach, CA. 90802	Bill to: Marina Robertson 111 W. Ocean Blvd. Suite 1240 Long Beach, CA 90802
FACILITY: Platform Ely		SUBMITTED TO: Calscience	
SAMPLER NAME:		REPORT TO: Marina Robertson	
PROJECT/CHARGE #		COPIES TO: Platform Supervisor	
RESULTS REQUIRED: 48 hr RUSH		lawrylits@sbcbglobal.net	
RESULTS BY: PHONE:		PHONE: 714-895-5494	
E-MAIL:		PHONE: 562-683-3497	
X		PHONE: 562-606-5705	
mrobertson@betaoffshore.com		PHONE: 805-644-4560	
704 Adirondack, Ventura, CA 93003			

SAMPLE NO.	SAMPLE ID	GRAB/COMP.	VOLUME	DATE/TIME COLLECTED	PRESERV.	ANALYSES REQUESTED (METHOD)
1	NPDES Prod. Water	grab	1 L amber	11/8/14 @ 12:36	H2SO4	Oil & Grease (EPA 1664)
2	NPDES Prod. Water	grab	1 L amber		H2SO4	Oil & Grease (EPA 1664) Hold
3	NPDES Prod. Water	grab	1 L amber		H2SO4	Oil & Grease (EPA 1664) Hold
4	NPDES Prod. Water	grab	1 L amber		H2SO4	Oil & Grease (EPA 1664) Hold

Caution to Sample Collector: all sample bottles contain a concentrated acid preservative. Follow all procedures outlined in your NPDES manual and use proper PPE when collecting the samples.

Comments: For Samples 1-4: Analyze Sample #1 only - hold other samples until further notice.

Date: _____
Time: _____

Date: _____
Time: _____

Date: _____
Time: _____



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Marine Shipping Manifest

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Calscience

WORK ORDER #: 14-11-0764

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: LTS ENVIRONMENTAL, INC

DATE: 11/10/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Temperature 4.0 °C - 0.2°C (CF) = 3.8 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 804

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____ ☐ No (Not Intact) ☒ Not Present ☐ N/A Checked by: 804

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present Checked by: 826

SAMPLE CONDITION:

Chain-Of-Custody (COC) document(s) received with samples..... ☒ Yes ☐ No ☐ N/A

COC document(s) received complete..... ☒ Yes ☐ No ☐ N/A

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC..... ☐ Yes ☒ No ☐ N/A

Sample container label(s) consistent with COC..... ☒ Yes ☒ No ☐ N/A

Sample container(s) intact and good condition..... ☒ Yes ☐ No ☐ N/A

Proper containers and sufficient volume for analyses requested..... ☒ Yes ☐ No ☐ N/A

Analyses received within holding time..... ☒ Yes ☐ No ☐ N/A

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ Yes ☐ No ☒ N/A

Proper preservation noted on COC or sample container..... ☒ Yes ☐ No ☐ N/A

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... ☐ Yes ☐ No ☒ N/A

Tedlar bag(s) free of condensation..... ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 1AGB ☐ 1AGBna₂ ☒ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBznna ☐ 100PJ ☐ 100PJna₂ ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: 826

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 862

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: 862